

Title (en)  
DUAL POWER SUPPLY SYSTEM

Title (de)  
DOPPELTES STROMVERSORGUNGSSYSTEM

Title (fr)  
SYSTÈME D'ALIMENTATION ÉLECTRIQUE DOUBLE

Publication  
**EP 3360719 B1 20200909 (EN)**

Application  
**EP 17155310 A 20170209**

Priority  
EP 17155310 A 20170209

Abstract (en)  
[origin: EP3360719A1] The present invention refers to a dual power supply system (100) with a first system terminal (101), a second system terminal (102), and a third system terminal (103). The dual power supply system further comprises a first battery cell stack (14) that is interconnected between a first stack node (11) and a second stack node (12) and provide a first operation voltage and a second battery cell stack (15) that is interconnected between the second stack node (12) and a third stack node (13) and provides a second operation voltage. The dual power supply system further comprises a DC/DC converter (20) with a first converter node (21), a second converter node (22) and a third converter node (23) that is configured for converting a voltage of the first battery cell stack (14) or the second battery cell stack (15). Each of the system terminals (101,102,103) is connected to the respective stack node (11,12,13) and the respective converter node (21,22,23) in parallel. In the dual power supply system of the invention, the DC/DC (20) can provide redundant power supply and active balancing. The invention further relates to a vehicle (200) with such dual power supply system (100).

IPC 8 full level  
**B60L 1/00** (2006.01); **B60L 3/00** (2019.01); **B60L 58/18** (2019.01); **H02J 7/00** (2006.01); **H02M 1/00** (2006.01)

CPC (source: EP KR US)  
**B60L 1/003** (2013.01 - EP KR US); **B60L 3/0046** (2013.01 - KR); **B60L 3/0092** (2013.01 - EP); **B60L 50/66** (2019.01 - US); **B60L 53/20** (2019.01 - KR); **B60L 53/31** (2019.01 - KR); **B60L 58/10** (2019.01 - EP); **B60L 58/18** (2019.01 - EP); **B60L 58/19** (2019.01 - KR); **B60L 58/22** (2019.01 - US); **H02J 7/0013** (2013.01 - EP KR); **H02J 7/0014** (2013.01 - EP KR US); **B60L 2210/10** (2013.01 - KR US); **B60L 2240/547** (2013.01 - KR); **B60Y 2200/91** (2013.01 - KR US); **H02J 2207/20** (2020.01 - EP); **Y02E 60/10** (2013.01 - EP); **Y02T 10/70** (2013.01 - KR); **Y02T 10/7072** (2013.01 - EP); **Y02T 10/72** (2013.01 - KR); **Y02T 10/92** (2013.01 - EP); **Y02T 90/12** (2013.01 - EP); **Y02T 90/14** (2013.01 - EP)

Citation (examination)  
WO 2016121273 A1 20160804 - SONY CORP [JP] & EP 3252917 A1 20171206 - SONY CORP [JP]

Cited by  
EP3963688A4; GB2565090B; EP3722137A1; CN110481468A; CN113212187A; EP3951998A4; JPWO2020136907A1; EP3905501A4; US11247582B2; JP2021023018A; CN113710545A; EP3620321A1; WO2020136907A1; US11084397B2; US11600991B2; EP3798039A1; US2022001770A1; US11970081B2; WO2021020029A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3360719 A1 20180815; EP 3360719 B1 20200909**; CN 110290973 A 20190927; CN 110290973 B 20221108; HU E051164 T2 20210301; KR 102501272 B1 20230217; KR 20190141121 A 20191223; PL 3360719 T3 20210419; US 11407311 B2 20220809; US 2019359081 A1 20191128; WO 2018147542 A1 20180816

DOCDB simple family (application)  
**EP 17155310 A 20170209**; CN 201780086151 A 20171214; HU E17155310 A 20170209; KR 2017014732 W 20171214; KR 20197023290 A 20171214; PL 17155310 T 20170209; US 201916535473 A 20190808